

Whether Lego should develop its smart toys market?

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Abstract. This article will discuss the enablement of the investment into smart toys for the LEGO Group by respectively discussing the overall situation of LEGO including its development over years and financial details, the market situation of smart toys including potentials, drawbacks, and rising issues, and then analysis of SWOT of LEGO adopting smart toys into their plan. As a result, with the internally favorable investing environment and matching profile with smart toys of the LEGO Group and the positive market situation and the prospect of smart toys, while there are also rising issues regarding smart toys, the risks also come with huge potentials, further, smart toys investments could fairly be adopted by the LEGO Group.

Keywords: Lego, smart toy market, SWTO.

1. Overview Of Lego®

1.1 Development of The LEGO Group

The combination of the Danish words “Leg Godt” which means “play well” is the origin of the name LEGO, also the ideal of the LEGO Group [1]. The LEGO Group was founded in 1932 by Ole Kirk Kristiansen, a Danish carpenter who has always pursued high-quality craftsmanship. Long before LEGO has become such a modern, international enterprise, it was just a small local workshop created by Ole Kirk Kristiansen to make a living for his family. The LEGO Group is a family business, it has been passed from father to son and the company is now owned by Kjeld Kirk Kristiansen. And Niels B. Christiansen has been the CEO of the company since 2017 [1].

Today’s well-known LEGO® bricks were launched by Ole Kirk Kristiansen in 1949 under the name of “Automatic Binding Bricks” [1]. Shortly after, in 1953, the name “LEGO Bricks” was applied, and the name “LEGO” was started to be imprinted on every brick. It is in 1958 then, with the new coupling patent, the interlocking principle, the LEGO Bricks that we see today were finally created [1]. Throughout all these years, the LEGO Group’s portfolio grows by 60% each year [2].

They have launched multiple products and themes other than the most important LEGO brick, such as LEGO wheel, LEGOLAND, LEGO Technic, LEGO Pirates, LEGO Friends, etc., bringing the business of LEGO to the top of the field step by step with the foundation of the core LEGO Brick. In 1999, LEGO® was elected as “Toy of the Century” for the first time [2].

LEGO’s development was not always plain sailing. Around 2005, LEGO found itself in a financial crisis and is at the edge of bankruptcy. Under the situation of the patent expiration of building bricks and the more and more visible impact of video games on traditional games, the LEGO Group invested in several poor innovation strategies to strive for market competitiveness, which unfortunately led to the chaos of the company’s management system and consequently a bad financial crisis [3].

Fortunately, shortly after, the LEGO Group was able to get things back on track, focusing on core businesses and rebuilding product competitiveness, combining direct sales and franchises, following educational channels and developing IP products [3]. Nowadays, the LEGO Group grows fast, it has more than 24,000 people in their business throughout 40+ countries all over the world. There are 832 stores in total as of 2022 that are allowing kids and adults to buy from and play with LEGO [1]. In the nearest 2021 particularly, it was reported an increase in annual revenue of 27% by LEGO data analysis and has reached the revenue of \$8.06 billion up from \$6.36 billion in 2020, which is the result of, according to LEGO’s official, successful strategic investments in product innovation, digitalization, and sustainability, etc [4].

What's more, based on the report on the toy industry of 2020, LEGO successfully reached a market share of 7.6% with a sales revenue of more than \$7.2 billion and has therefore become the largest toy company throughout the world while Bandai Namco follows behind [5].

1.2 Financial Report Analyzing

1.2.1 Revenue

Regarding annual revenue, according to the annual financial report of the LEGO Group official, in 2018, Lego's annual revenue was 36,391 billion DKK (5.7 billion USD) and experienced a growth of 4 percent from the previous financial year; In 2019, there was a full 6 percent of revenue increase and Lego had the annual revenue of 38.5 billion DKK (5.9 billion USD); In 2020, ahead of expectation, Lego's revenue of the year increased by 13 percent and reached 43.7 billion DKK (6.6 billion USD); In the nearest 2021, greater growth was shown, Lego's revenue for the year was 55.3 billion DKK (8.07 billion USD) with a full 27 percent increasing [6-9]. With the amount of revenue the LEGO Group earned, they have become the biggest toy company worldwide and have a market share of more than seven percent which also gives them capital and makes them more likely to make further investments and inventions.

1.2.2 Share

According to the financial report of the LEGO Group, the total 205 share capital of the company consists of 19 A-shares, 150 B-shares, and 36 C-shares from 2018-2021 straightly with the nominal value of A-share, B-share, and C-share being 1 mDKK, 9 mDKK, and 10 mDKK [6-9]. At the same time, as most family businesses, to avoid family member shareholders possibly cashing out in the stock market, the LEGO Group did not go public and is not planning to at least soon.

1.2.3 Assets

In 2018, the total non-current assets including intangible assets such as development projects and software, property and equipment, and deferred tax assets and prepayments were 12,754 million DKK, and current assets including inventories, trade receivables, and receivables from related parties were 18,731 mDKK which made the total assets of the LEGO Group of 2018 31,485 million DKK or appropriately 4.8 billion USD [6]. In 2019, the LEGO Group had 16,705 mDKK's non-current assets, 18,241 mDKK's current assets, and a total assets of 34,946 mDKK or appropriately 5.2 billion USD [7]. In 2020 and 2021, the total assets increased from 37,202 to 47,991 mDKK [8-9].

1.2.4 Equity and Liability

The total equity of the LEGO Group increased from 21,753 to 22,183 mDKK from 2018 to 2019, and from 23,547 to 29,138 mDKK (4.3 billion USD) from 2020 to 2021 with the inclusion of retained earnings and share capital minus reserve for hedge accounting and currency translation. The non-current liabilities in 2018 were 663 mDKK and 3,315 mDKK in 2019 with the adding of a large number of lease liabilities, while the total current liabilities were 9,069 in 2018 and 9,448 in 2019 with mostly trade payables and other debt which made the total liabilities 9,732 mDKK in 2018 and 12,763 mDKK in 2019. The non-current liabilities in 2020 were 3,184 mDKK and 4,647 mDKK in 2021, current liabilities were 10,471 in 2020 and 14,206 in 2021 which made the total liabilities 13,655 mDKK in 2020 and 18,855 mDKK (2.8 billion USD) in 2021 [6-9].

1.3 Consumer Market/Marketing

According to research done based on US consumers of LEGO, most of the consumers are Gen X and Millennials who built up 71 percent of the consumers [10]. Regarding income, 55 percent of the consumers are from the high-income class that makes more than \$80k and the low-income class consists of only 18 percent of the consumers. In terms of race, a total of 72 percent of the consumers are White/Caucasian and 14 percent are Hispanic/Latino [10]. What's more, there are up to 80 percent of all the consumers are female and only 19 percent of male according to the research [10].

Though most of the end users of toys and LEGO are children, the real consumers at the site are always parents or adults. In terms of marketing strategies, the LEGO Group is aware of this and is always marketing accordingly as they promise the “parent-approved” of their products [11]. While improving technology and continuing on innovative product development, the LEGO Group implemented the focused strategy and had, since years ago, starting to put their sight into the Asian market first China, then Singapore in 2021, and has already seen results from it. With the fact that the toy/smart toy market of the Asian area is predicted to be the one that is going to experience the fastest growth shortly, the LEGO Group is the reason as well as the result [12]. On the other hand, they are also aware of the importance of licensing & merchandising (LEGO Movie franchise and LEGOLAND) and digitalization & social media/content marketing in this era and started to put the effort into it [11]. What’s more, they are investing and have always been investing in the education sector related to toys which meet the rising demands of their consumers, the parents [11]. With parents nowadays paying more and more attention to engagement and behavioral learning, and the adoption of STEM practices regarding toys, this investment paid off and is well respected which will possibly become one of their connections and promotion points for potential smart toy investment.

2. Overview Of The Smart Toy Market

2.1 Regarding Consumer Market

With the development of people’s material life worldwide, the demand for smart toys is getting visible mainly because of the rise in income, middle-class population, and smartphone and internet penetration [11,13]. On the other hand, more and more parents start to pursue skill and intellectual advancement for their children through smart toys that have the adoption of STEM since they can provide engagement and behavioral learning when playing [11,14]. The pandemic has supported the growth of the smart toys market indirectly in the later stage for media platforms and industries were gaining more and more attention when indoor activities were encouraged [11,13].

As a result, globally, the value of the smart toys market was \$10.11 billion in 2020 and is estimated to reach a market size of \$34.13 billion, growing at a compound annual growth rate (CAGR) of 16.5% by 2028 [13].

2.2 Regarding Geographic

Geographically, North America was presented to hold the largest revenue share that reaching up to 40% in 2020 mainly due to an increase in disposable income. The other driving factors are the adoption of smart home devices (according to research regarding Mattel Inc. and Hasbro Inc.), and rising demand for in-classroom educational toys [13]. Asian Pacific (APAC), on the other hand, is anticipated to experience the fastest growth in the predicted future with China being the major revenue generator due to rapid urbanization, rising population of middle-class people, growing preference for educational learning toys, and once again increasing income of people. And the LEGO Group has played a role in the growing demand of this region because of their specific investment in Asian market which resulted in a wide distribution network and engagement rate with customers.

2.3 Others

According to research, the product type of smart toy that held the most revenue share is interactive games was leading the market in 2020 and educational/stem smart toys are estimated to possess the fastest CAGR in the predicted future; Technology wide, wifi is going to be the main player throughout the smart toy market; Regarding distribution channel, many companies are appearing and are going to appear in the market while the offline segment was the major player in 2020 [12]. On the other hand, researches also show the top 5 best-selling smart toys: AI toys, Robotic toys, Mixed Reality toys, Therapeutic toys, and Educational/STEM toys [15].

With the smart toys market having so much of possibilities and predictable huge revenue, there are also negligible issues that are faced by all the smart toys companies. One of the most important

ones is the cyber-security/security and privacy problem [15]. Customers require cyber-secured, transparent enough smart toys that they can play with without extra worryment. What's more, in the fact that many of the end users are children, the issue of age appropriation and ethics is also highly valued [15].

Though there are difficulties like high extends of bifurcation of the market because of segmentation of end-user, distribution channels, more and more entrances, etc., in turn, there are more diverse possibilities in the smart toys market alongside.

3. Potential Smart Toy Market Of Lego

In the case that the focus of the LEGO Group in recent years is to invest in and develop the educational sector as well as further inventory progress, smart toys, which to a large extent involve STEM and educational inclusions that meet the set profile of the company, could be a possible next step for LEGO to take. At the same time, the smart toy market nowadays is also seeing more possibilities with the development of society and people's material life. Combinedly, investing in smart toys would be worth a try. In this section, I will be focusing on discussing related topics from my point of view based on analysis.

3.1 SWOT and Target Audiences

3.1.1 Strength

The LEGO Group is a mature and reputational toy company and has the biggest market share nowadays, product and projects and developments are always backed up by the originally huge customer base while their financial situation is positive for them to invest in such relatively high-cost products. Alongside, LEGO has been investing in digitalization, product innovation (continuously), and more importantly education sector of their products lately which meet the market profile of smart toys [4,11]. The uniqueness of the bricks is also one of the biggest strengths of the LEGO Group. Regarding smart toys, the emerging market would add to the existing strength of LEGO.

3.1.2 Weakness

Because of the outstanding image of LEGO is their representational product LEGO Bricks, the team has to take efforts to combine bricks cleverly with smart toys which have fewer possibilities out there, or they will have to come up with a new unprecedented project to win the market over. Besides, the company had once run to the edge of bankruptcy due to poor innovation strategies to beat the competitors, so it could also be a harder one since they should become cautious about it.

3.1.3 Opportunities

With the development of people's material life worldwide, the demand for smart toys is getting visible since more and more parents start to pursue skill and intellectual advancement for their children through smart toys that have the adoption of STEM and can provide engagement and behavioral learning [16]. What's more, the origin of the LEGO Group to make bricks is for children to play while learning and thinking, similar features of smart toys could add to that core value of the LEGO Group. Also, based on research, the smart toys market of the Asian Pacific area is predicted to be the one with the highest growth rate while the LEGO Group is at the meantime aiming at opening up the Asian market which makes each other the perfect match with each other.

3.1.4 Threats

While LEGO is the biggest toy company in the world, there are strong competitors in the field of smart toys out there in the market who have already taken up a great portion of the smart toy market through influential products. To be able to beat the competitor, LEGO needs to fulfill all the vacant from the customer feedback and make up for all the existing issues of smart toys while being innovative enough with its products. Meanwhile, the issue that all other competitors are facing will be faced by LEGO, since cyber security and related problems are a big one, it could be a tough step.

To briefly discuss possible target audiences, at an offline store, as well as putting new products on sale in the original stores, new counters and new zones should be opened targeting the consumer groups with higher consumption levels so that the old customer groups of Lego handmade bricks would to a large extent not be disrupted. Similar distributary should also be applied to online shops; Cooperating with preschools to create small smart toys suitable for preschools that are simple, low cost, and easy to operate; Cooperating with smart toy-related cartoon IP to create a new combined customer base.

4. Conclusion

In conclusion, LEGO is a mature and sophisticated business with the capability to explore new fields of toys, at the same time, it is also a company with a positive financial and developing overview which is also pro to their future investment. Also, according to research, it is easy to tell that the LEGO Group's emphasis at this period has been put on focusing on the education sector which overlaps with the feature of smart toys which is the main reason why the LEGO Group could invest in smart toys. As for smart toys, as society has been developed and is always developing and with people's material life getting better, more and more people and parents are starting to be willing to invest in smart toys which can provide entertainment while learning at the same time for their children. Researchers, these years have concluded that the smart toys market is getting bigger and bigger mainly because of the reasons above. At the same time, when analyzing the future market, it is predicted that the Asian Pacific Area is possibly the area with the most growth rate in the smart toys market. While starting in 2020, the LEGO Group has also started exploring the Asian market as well. With that being said, investing in smart toys could be a possible step to take for the LEGO Group. However, it is not to say that they are all about advantages. With the market getting bigger, there are also issues regarding products (such as cyber security problems) and threats regarding competitors rising. But after all, although there are risks and competition when taking this step, there are also huge potentials out there for LEGO.

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